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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,841	12/12/2003	Lap-Wai Chow	B-4425NP 621267-1	3188
36716	7590	11/27/2006	EXAMINER	
LADAS & PARRY 5670 WILSHIRE BOULEVARD, SUITE 2100 LOS ANGELES, CA 90036-5679			LEE, EUGENE	
			ART UNIT	PAPER NUMBER
			2815	

DATE MAILED: 11/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/735,841

Applicant(s)

CHOW ET AL.

Examiner

Eugene Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/25/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Sawada et al. 5,210,437. Sawada discloses (see, for example, FIG. 2E) a semiconductor device (camouflaged circuit structure) having a gate electrode (gate region) 27, substrate 21, source and drain diffusion layers (first active region/second active region) 28, and well (first well) 25. In claim 2, Sawada discloses the well is the same conductivity type (first conductivity type) as that of said source and drain layers.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2 thru 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawada et al. '437 as applied to claims 1, and 5 above, and further in view of Spadea 3,983,620. Sawada does not disclose a plurality of wells of a second type, at least one of said plurality of wells of a second type being in physical contact with said first active region. However, Spadea discloses

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(see, for example, Fig. 19) a semiconductor device comprising P+ source and drain regions 17, 17' and N+ guard rings (plurality or wells of a second type) 22. It would have been obvious to one of ordinary skill in the art at the time of invention to have a plurality of wells of a second type, at least one of said plurality of wells of a second type being in physical contact with said first active region in order to isolate the transistor from other elements in a semiconductor device.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shibata 4,860,084 in view of Kawagoe 4,145,701. Shibata discloses (see, for example, FIG. 4) a semiconductor integrated circuit device (semiconductor circuit) comprising a substrate 10, gate layer (gate region) 16, source region/drain region (plurality of active regions) 12, 14; and p-type semiconductor layers (plurality of wells of a second conductivity type) 78, 76. In column 5, lines 64-67, Shibata discloses the source region/drain region being n-type (first conductivity type). Shibata does not disclose a first well of a first conductivity type. However, Kawagoe discloses (see, for example, FIG. 6b) a field effect transistor comprising a channel layer (first well) 3'. In column 3, lines 38-42, Kawagoe discloses the channel layer is formed by boron (first conductivity type). It would have been obvious to one of ordinary skill in the art at the time of invention to have a first well of a first conductivity type in order to have a high density of integration (see, for example, column 3, lines 59-63 of Kawagoe).

Response to Arguments

6. Applicant's arguments filed 9/18/06 have been fully considered but they are not persuasive.

Sawada clearly discloses (see, for example, FIG. 2E) a well 25 that is formed by the doping of phosphorous. Nowhere in the disclosure does Sawada state with definitiveness that this well region is not present when any reasonable voltage is applied to circuit. In fact, Sawada clearly shows a distinct well structure that is in the final device embodiment of FIG. 2E. There is no evidence in Sawada that such a well structure would not be there regardless of any reasonable voltage. Since the entire structure (i.e. gate, source, drain, well) of Sawada is essentially identical to the structure (also containing a gate, source, drain, well) shown in Figure 2 of the applicant's figures with the same positioning, it would be concluded that both structures would have the same electrical functions/effects.

Regarding applicant's argument of claim 6, the combination of first well 3' of Kawagoe may remove the contact portions of Shibata, however, such a removal would still permit the combination of Shibata and Kawagoe to disclose the limitations in the applicant's claims since the claims do not recite anything about contact portions. The inclusion of layers 78, 76 is still beneficial to Shibata since they would prevent leakage current to flow between a source and drain region in a substrate.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

INFORMATION ON HOW TO CONTACT THE USPTO

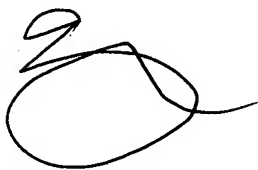
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eugene Lee whose telephone number is 571-272-1733. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Parker can be reached on 571-272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eugene Lee
November 14, 2006

A handwritten signature in black ink, appearing to be 'Eugene Lee', written in a cursive style.

EUGENE LEE
PRIMARY EXAMINER